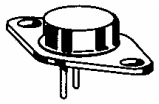
Microsemi LAWRENCE

TECHNICAL DATA

NPN SILICON TRANSISTOR

Devices

2N4911



TO-66 Package

- **Medium Power**
- **Switching and Amplifier Applications**

MAXIMUM RATINGS (PER LEG)

Ratings	Symbol	Value	Units
Collector-Emitter Voltage	V_{CEO}	60	Vdc
Collector-Base Voltage	V_{CB}	60	Vdc
Emitter-Base Voltage	V_{EB}	5.0	Vdc
Collector Current – Continuous Peak (1)	I_C	1.0	Adc
Base Current – Continuous	I_B	1.0	Adc
Total Power Dissipation @ $T_C = 25^0C$ Derate above 250C	P_D	 25 0.143	 Watts $W/^0C$
Operating and Storage Junction Tempature Range	T_J, T_{stg}	-65 to +200	^0C

THERMAL CHARACTERISTICS

Thermal Resistance – Junction to Case	$R_{\theta JC}$	7.0	$^0C/W$

(1) Pulse Test: Pulse Width = 10 ms, Duty Cycle < 10%

ELECTRICAL CHARACTERISTICS ($T_C = 25^0C$ unless otherwise noted)

CHARACTERISTICS	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Systaining Voltage $I_C = 0.1$ Adc, $I_b = 0$	$V_{CEO(sus)}$	60		Vdc
Collector Cutoff Current $V_{CE} = 30$ Vdc, $I_B = 0$ V_{CE} = Rated V_{CB}, V_{be} off = 1.5 Vdc	 I_{CEO} I_{CEX}		 0.5 0.1	 mAdc mAdc
Collector Cutoff Current $V_{CE} = 90\ V_{CB}$ $V_{CE} = 90\ V_{CB}$, $T_C = 150^0$	I_{CES}		10 75	V_{Adc} V_{Adc}
Emitter Cutoff Current $V_{BE} = 5.0$ Vdc, $I_C = 0$	I_{EBO}		1.0	mAdc

ON CHARACTERISTICS

DC Current Gain I_C = 50 µAdc, V_{CE} = 1.0 Vdc I_C = .5 Adc, V_{CE} = 1.0 Vdc	h_{FE}	40 20	100	Vdc
Collector-Emitter Saturation Voltage I_C = 1.0 Adc, I_B = 100 mAdc	$V_{CE(sat)}$		0.6	Vdc
Base-Emitter Saturation Voltage I_C = 1.0 Adc, I_B = 100 mAdc	$V_{BE(sat)}$		1.3	Vdc

DYNAMIC CHARACTERISTICS

CHARACTERISTICS	Symbol	Min	Max	Unit
Forward Current Transfer Ratio IC = .25 Adc, VCE = 10 Vdc, f = 1.0 kHz	h_{fe}	25		MHz
Output Capacitance VCB = 10 Vdc, IE = 0, f = 100 kHz	C_{ob}		100	p^F

(1) Pulse Test: Pulse Width = 300µs, Duty Cycle ≤ 2.0%